



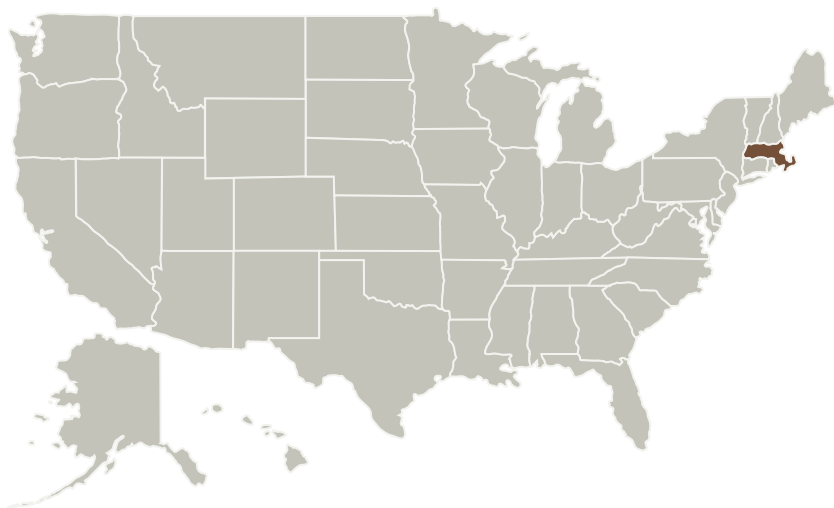
Project Introduction

The research conducted under this fellowship will focus on analyzing methods for utilizing In Situ Resources in support of Manned Space Exploration. Examples of this include how to manage resources on the Moon to support extended human exploration by minimizing the amount of resources needed to be launched from Earth. A special focus will be on a detailed task analysis of what is required to set up, activate and maintain the ISRU facility. We will then determine how most efficiently to divide the various tasks between robots and humans.

Anticipated Benefits

This project focuses on analyzing methods for utilizing In Situ Resources in support of Manned Space Exploration.

Primary U.S. Work Locations and Key Partners



Primary U.S. Work Locations

Massachusetts

Project Website:

<https://www.nasa.gov/directorates/spacetech/home/index.html>



In Situ Resource Utilization in Support of Manned Space Exploration

Table of Contents

Project Introduction	1
Anticipated Benefits	1
Primary U.S. Work Locations and Key Partners	1
Project Website:	1
Organizational Responsibility	1
Project Management	2
Technology Maturity (TRL)	2
Technology Areas	2

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Responsible Program:

Space Technology Research Grants



Project Management

Program Director:

Claudia M Meyer

Program Manager:

Hung D Nguyen

Principal Investigator:

Jeffrey A Hoffman

Co-Investigators:

Sam Schreiner

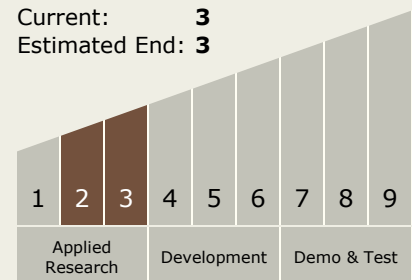
Samuel Schreiner

Technology Maturity (TRL)

Start: 2

Current: 3

Estimated End: 3



Technology Areas

Primary:

- TX07 Exploration Destination Systems
 - └ TX07.1 In-Situ Resource Utilization
 - └ TX07.1.2 Resource Acquisition, Isolation, and Preparation